



Oscilent Corporation

PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF70.0M-05A	70.0 MHz IF SAW Filter 5.40 MHz Bandwidth

Specification Contents

- o Mechanical Dimensions
- o Test Circuit
- o Maximum Ratings
- o Electrical Specification
- o Frequency Response
- o Smith Chart
- o VSWR

Notes

- o Electrostatic Sensitive Device (ESD) 
- o Avoid excessive ultrasonic exposure
- o Solderability compatible with JEDEC J-STD-020C Pb-free process, 260°C peak reflow temperature
- o This product complies with EU directive 2002/95/EC (RoHS compliance)





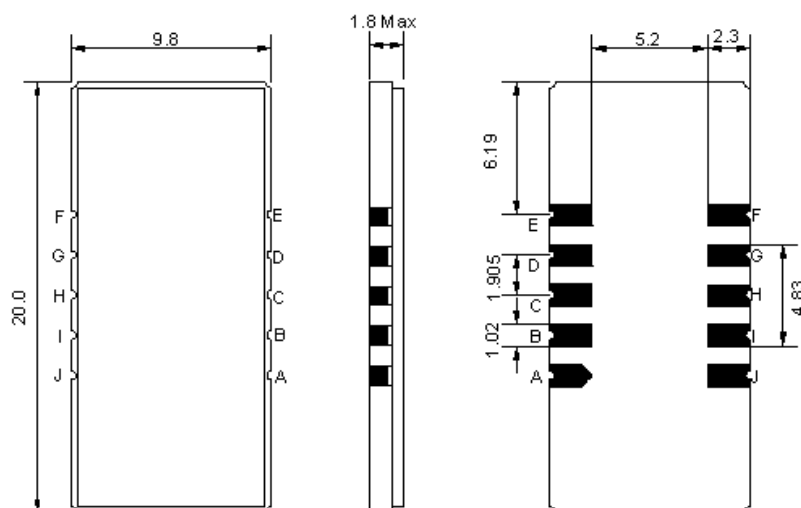
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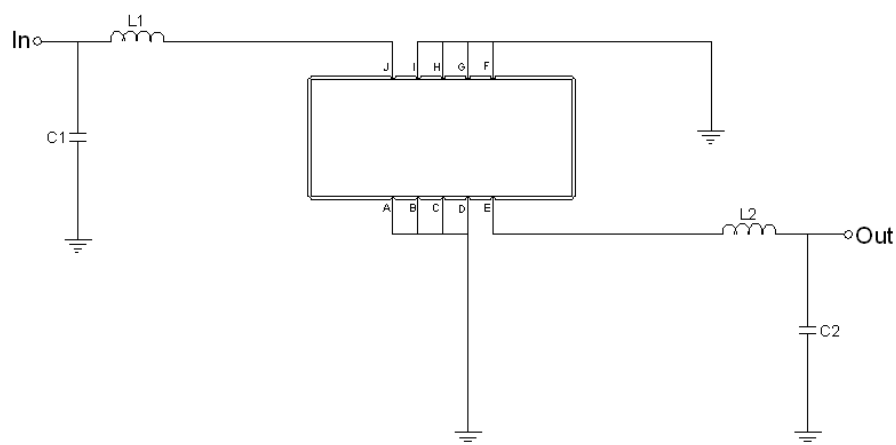
Mechanical Dimensions (mm)



Pin Description

A, B, C, D, F, G, H, I	Ground
J	Input
E	Output

Test Circuit



Test Fixture & Values

Input	L1 = 82 nH, C1 = 15 pF
Output	L2 = 82 nH, C2 = 15 pF
Source/Load Impedance	50 Ω

**Maximum Ratings**

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-	25	-
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Load Impedance (single ended) ⁽¹⁾	Ω	-	50	-

Notes: With Matching Network (Ref. Testing Environment Circuit as shown above).

Those impedances could be modified with different impedance values and/or structures, if necessary.

Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	69.90	70.00	70.10
Insertion Loss at Fo	dB	-	15.80	18.00
Group Delay Variation at Fo ±2.4 MHz	nsec	-	135	180
Absolute Delay at Fo	usec	-	1.96	-
Passband Ripple Variation at Fo ±2.4 MHz	dB	-	0.55	1.0
Bandwidth at -1dB	MHz	5.20	5.40	-
Bandwidth at -3dB	MHz	5.70	5.82	-
Bandwidth at -40dB	MHz	-	7.54	7.70
Bandwidth at -50dB	MHz	-	7.70	-
Ultimate Rejection	dB	50	57	-
Temperature Coefficient	ppm/°C	-	-72	-



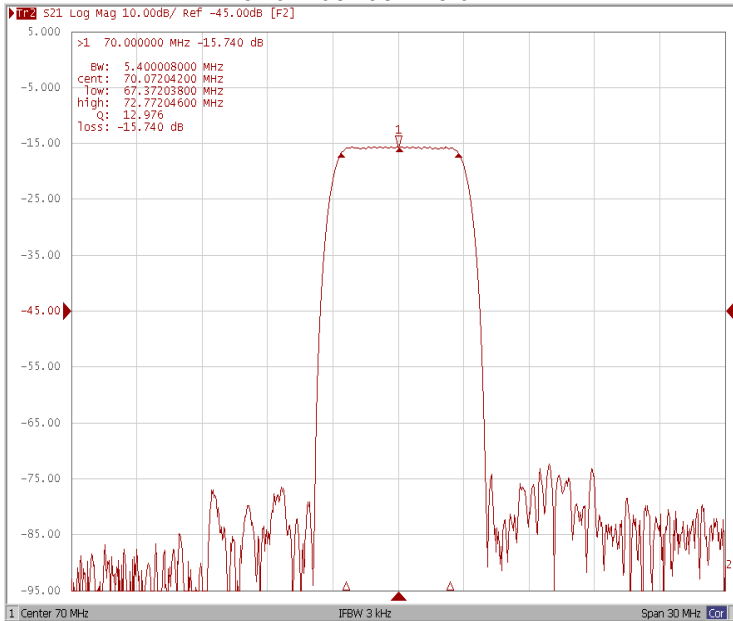
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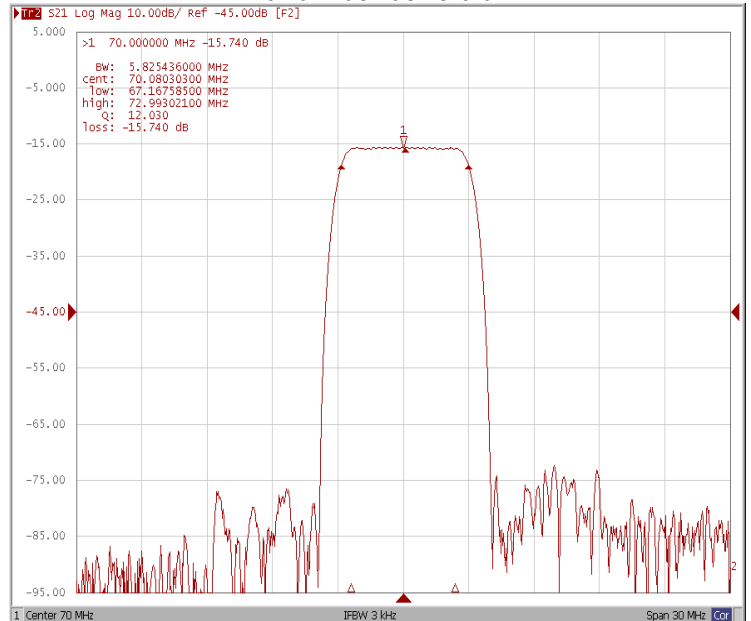
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Frequency Response

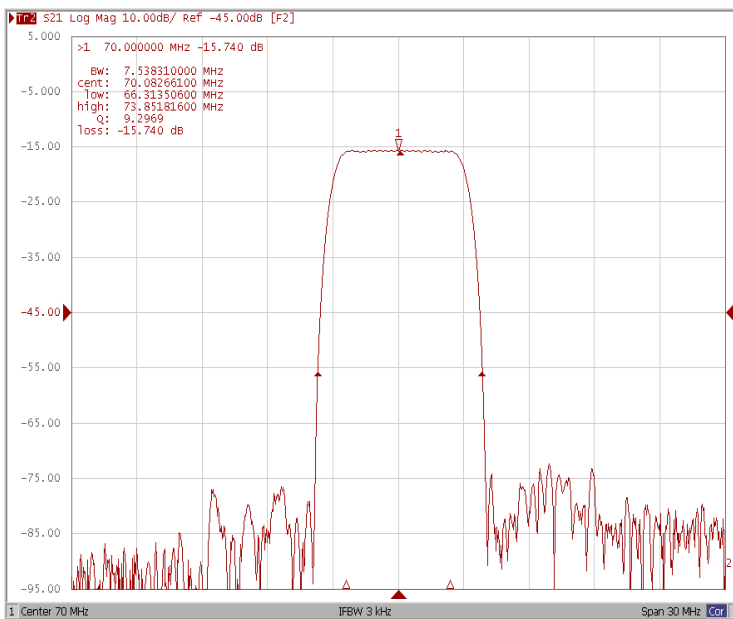
Bandwidth at -1.0 dB



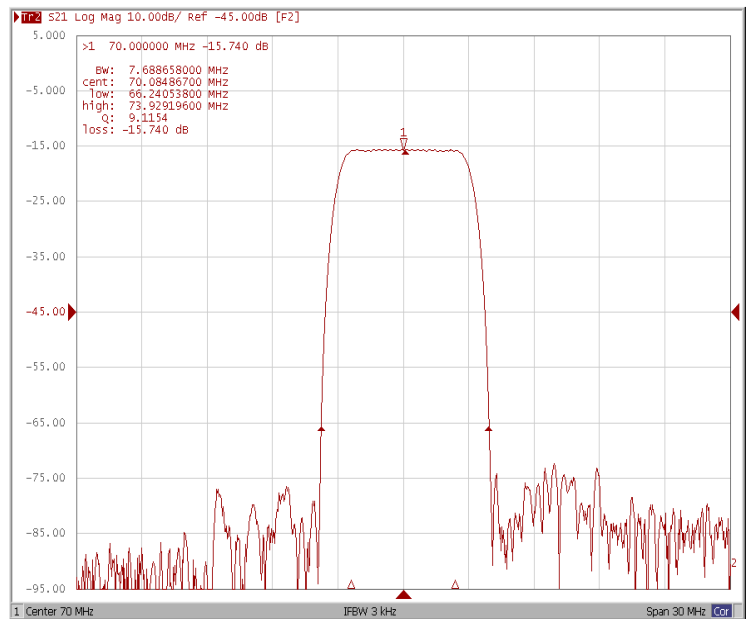
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB



Bandwidth at -50.0 dB





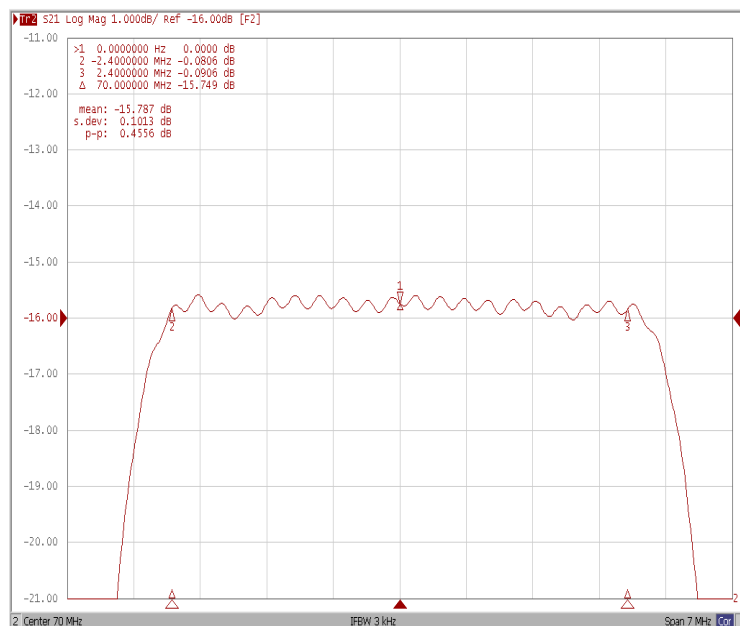
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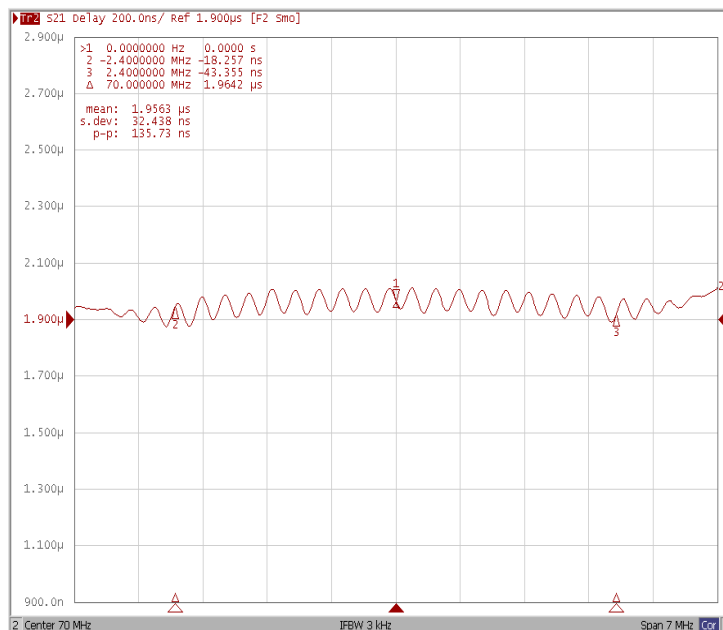
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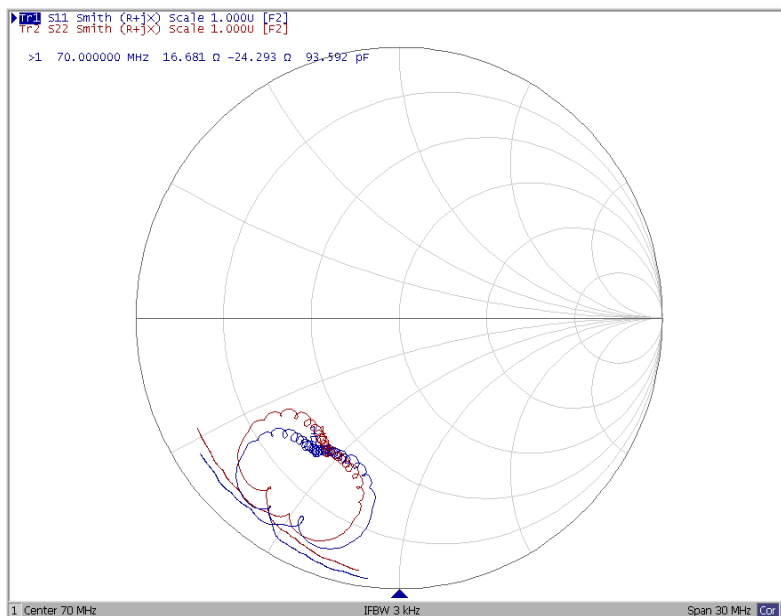
Ripple Variation Fo±2.4MHz



Group Delay Variation Fo±2.4MHz



Smith Chart





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VSWR

